FEDERAL®

LAW ENFORCEMENT AMMUNITION

FEDERAL

HI-POWER®

50 CENTER FIRE PISTOL CARTRIDGES
50 CARTOUCHES À PERCUSSION CENTRALE

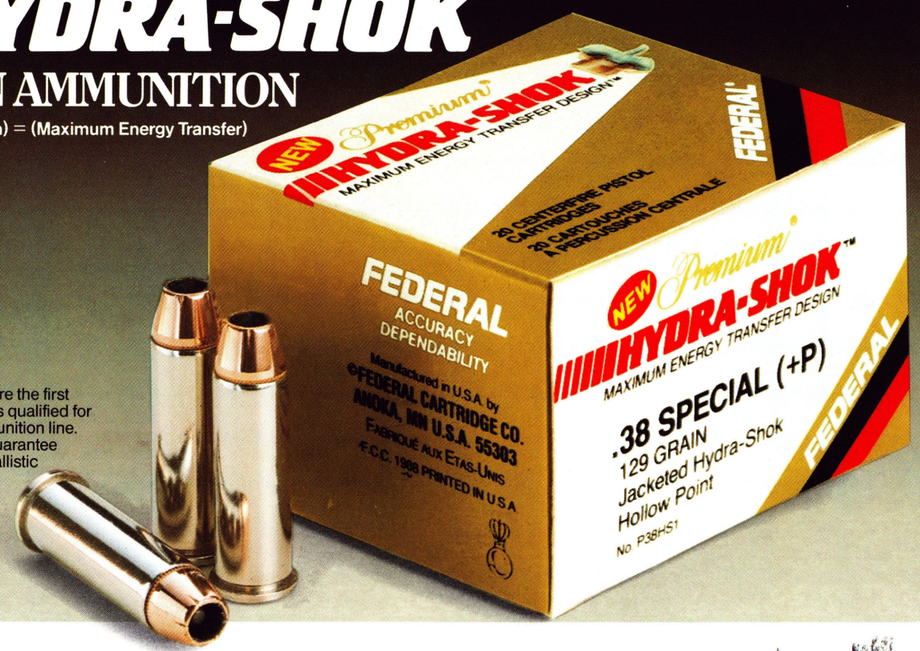
1989

FEDERAL *Premium*®

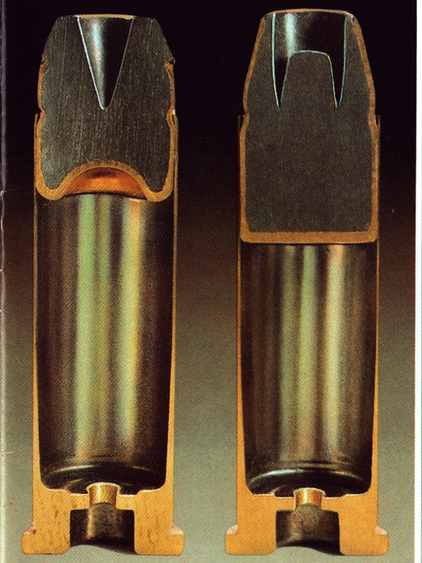
HYDRA-SHOK™

HANDGUN AMMUNITION

(Expansion) + (Penetration) = (Maximum Energy Transfer)



Our new Hydra-Shok loads are the first centerfire handgun cartridges qualified for Federal's elite Premium ammunition line. The Premium name is your guarantee of the highest standards of ballistic and terminal performance.

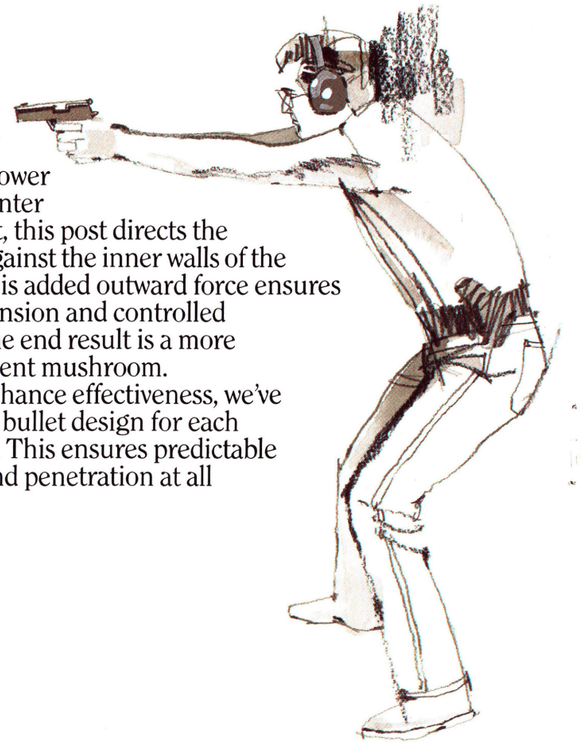


Conventional hollow point bullet

Premium Hydra-Shok hollow point bullet

With the introduction of the Hydra-Shok bullet, hollow point ammunition reaches a higher level of performance. And that provides you with a higher level of personal protection.

Hydra-Shok's patented design displays a better understanding of the need to quickly neutralize the threat in a deadly force confrontation. The bullet's design gives you the most consistent expansion and controlled penetration of any hollow point ammunition you can buy. That pays off in superior stopping power.

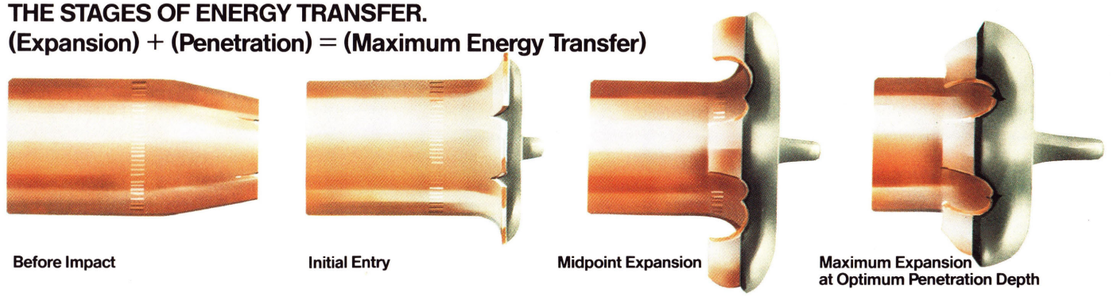


The secret of Hydra-Shok's power is its tapered center post. On impact, this post directs the target's fluids against the inner walls of the bullet cavity. This added outward force ensures maximum expansion and controlled penetration. The end result is a more reliable, consistent mushroom.

To further enhance effectiveness, we've customized the bullet design for each caliber we offer. This ensures predictable performance and penetration at all velocities.

THE STAGES OF ENERGY TRANSFER.

(Expansion) + (Penetration) = (Maximum Energy Transfer)



Before Impact — Initial Entry — Midpoint Expansion — Maximum Expansion at Optimum Penetration Depth

Premium Pistol and Revolver Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second Muzzle	25 yds.	50 yds.	Energy in Foot/Pounds Muzzle	25 yds.	50 yds.	Mid-Range Trajectory 25 yds.	50 yds.	Test Barrel Length Inches
P9HS1	9mm Luger (9x19mm Parabellum)	124	8.03	Hydra-Shok HP	100	1120	1070	1030	345	315	290	0.2	0.9	4
P9HS3	9mm Luger (9x19mm) (+P+)	124	8.03	Hydra-Shok HP	100	1220	1150	1090	410	360	325	0.2	0.8	4
P9HS2	9mm Luger (9x19mm Parabellum)	147	9.52	Hydra-Shok HP	100	1050	1010	980	360	335	310	0.3	1.1	4
P45HS1	45 Auto	230	14.90	Hydra-Shok HP	150	850	830	810	370	350	335	0.4	1.6	5
P38HS1	38 Special (High Velocity +P)	129	8.36	Hydra-Shok HP	100	945	930	910	255	245	235	0.3	1.3	4-V
P357HS1	357 Magnum	158	10.23	Hydra-Shok HP	100	1235	1160	1104	535	475	428	0.2	0.8	4-V

+P+ and +P ammunition is loaded to a higher pressure. Use only in firearms so recommended by the gun manufacturer. In addition, +P+ ammunition is available for law enforcement and government sales only. "V" indicates vented barrel to simulate service conditions.

FEDERAL MATCH RIFLE AMMUNITION

Federal Match Rifle Cartridges are used by championship marksmen and police S.W.A.T. units the world over. Our rigid loading specifications and quality components result in the most consistently accurate long-range rifle cartridges money can buy.

This year, we've added a new loading in 223. Like our Federal 308 Win. Match, the new 223 features the famous Sierra Matchking Boat-tail bullet atop match grade brass, and our high quality 205 Match primer.

Billed as the world's most accurate commercial 308 cartridge, our Federal 308 Win. Match (308M) was used to print this .917" ten-shot group at 200 yards from a machine rest. Shown here in actual size, this group shows the amazing accuracy possible with Federal match grade ammo.

FEDERAL MATCH HANDGUN AMMUNITION

A sharp eye, a steady hand, and Federal Match ammunition is the winning combination for accurate shooting. That's why Federal is used in competition by military marksmenship units and police pistol teams, along with the top civilian shooters.

All our match grade ammunition is manufactured to more demanding tolerances. Of course, this requires more time and labor, but it results in the most accurate and reliable handgun ammunition available. And because it costs about the same as standard ammunition, you don't have to outspend your competition to outshoot them.

Match Rifle Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second (to nearest 10 feet) Muzzle	100 yds.	200 yds.	300 yds.	400 yds.	500 yds.	600 yds.	700 yds.	800 yds.	900 yds.	1000 yds.	Energy in Foot/Pounds (to nearest 5 foot/pounds) Muzzle	100 yds.	200 yds.
223M	223 Rem. (5.56x45mm)	69	4.47	Boat-tail HP Match	205M	3000	2720	2460	2210	1980	1760	1560	1390	1240	1130	1060	1380	1135	925
308M	308 Win. (7.62x51mm)	168	10.88	Boat-tail HP Match	210M	2600	2420	2240	2070	1910	1760	1610	1480	1360	1260	1170	2520	2180	1870

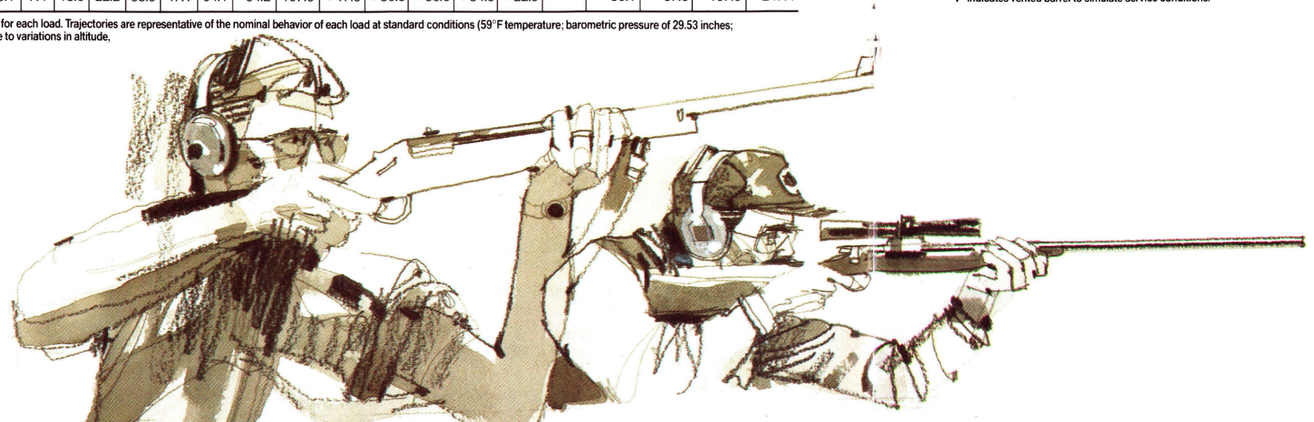
Federal Load No.	Energy in Foot/Pounds (to nearest 5 foot/pounds) 300 yds.	400 yds.	500 yds.	600 yds.	700 yds.	800 yds.	900 yds.	1000 yds.	Wind Drift in Inches 10 mph Crosswind 100 yds.	200 yds.	300 yds.	400 yds.	500 yds.	600 yds.	700 yds.	800 yds.	900 yds.	1000 yds.	Height of Bullet Trajectory in Inches Above or Below Line of Sight if Zeroed At ⊕ Yards. Sights 1.5 Inches Above Bore Line. 100 yds.	200 yds.	300 yds.	400 yds.	500 yds.	600 yds.	700 yds.	800 yds.	900 yds.	1000 yds.
223M	750	600	475	375	295	235	195	170	0.9	3.7	8.7	16.3	27.0	41.3	59.5	82.2	109.2	140.0	+ 1.6	⊕	− 7.4	−21.9	−45.3	−79.8	−128.7	−194.1	−280.2	−388.7
308M	1600	1355	1150	970	815	690	590	510	0.8	3.1	7.4	13.6	22.2	33.3	47.1	64.1	84.2	107.5	+17.5	+30.5	+36.6	+34.5	+22.9	⊕	− 36.1	− 87.8	−157.5	−247.4

These trajectory tables were calculated by computer using the best available data for each load. Trajectories are representative of the nominal behavior of each load at standard conditions (59°F temperature; barometric pressure of 29.53 inches; altitude at sea level). Shooters are cautioned that actual trajectories may differ due to variations in altitude, atmospheric conditions, guns, sights, and ammunition.

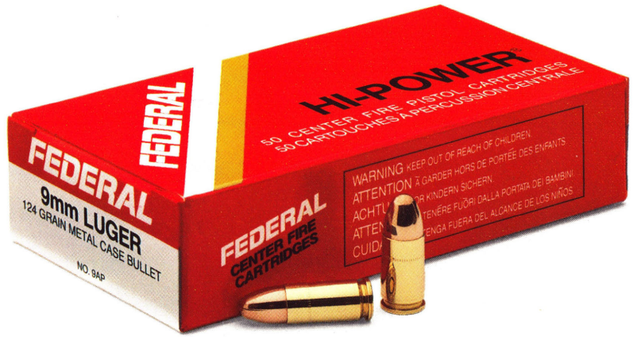
Match Pistol and Revolver Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second Muzzle	25 yds.	50 yds.	Energy in Foot/Pounds Muzzle	25 yds.	50 yds.	Mid-Range Trajectory 25 yds.	50 yds.	Test Barrel Length Inches
9MP	9mm Luger (9x19mm Parabellum)	124	8.03	FMJ-SWC Match	100	1120	1070	1030	345	315	290	0.2	0.9	4
45A	45 Auto	230	14.90	FMJ-Match	150	850	830	810	370	350	335	0.4	1.6	5
45B	45 Auto	185	11.99	FMJ-SWC Match	150	775	730	695	247	220	200	0.5	2.0	5
38A	38 Special	148	9.59	Lead Wadcutter Match	100	710	670	634	166	150	132	0.6	2.4	4-V
N38A	38 Special	148	9.59	Nyclad Wadcutter Match	100	710	670	634	166	150	132	0.6	2.4	4-V
44D	44 Rem. Magnum	250	16.20	MC Profile Match	150	1180	1140	1100	775	715	670	0.2	0.8	6½-V

"V" indicates vented barrel to simulate service conditions.



FEDERAL PISTOL AND REVOLVER AMMUNITION



The focus of our centerfire handgun cartridge offerings is to give you the right cartridge for your intended use. All incorporate tightly controlled ballistic specifications, all virgin materials and are 100% electronically and visually inspected for maximum uniformity and dependability.

In critical situations, you can rely on Federal law enforcement ammunition to deliver all the shock and stopping power necessary to provide superior self-protection. We understand that hitting the target achieves little if the bullet is not constructed to efficiently deliver its physical energy to that target. So extra care is taken to ensure that our handgun offerings facilitate the most efficient transfer of energy possible.

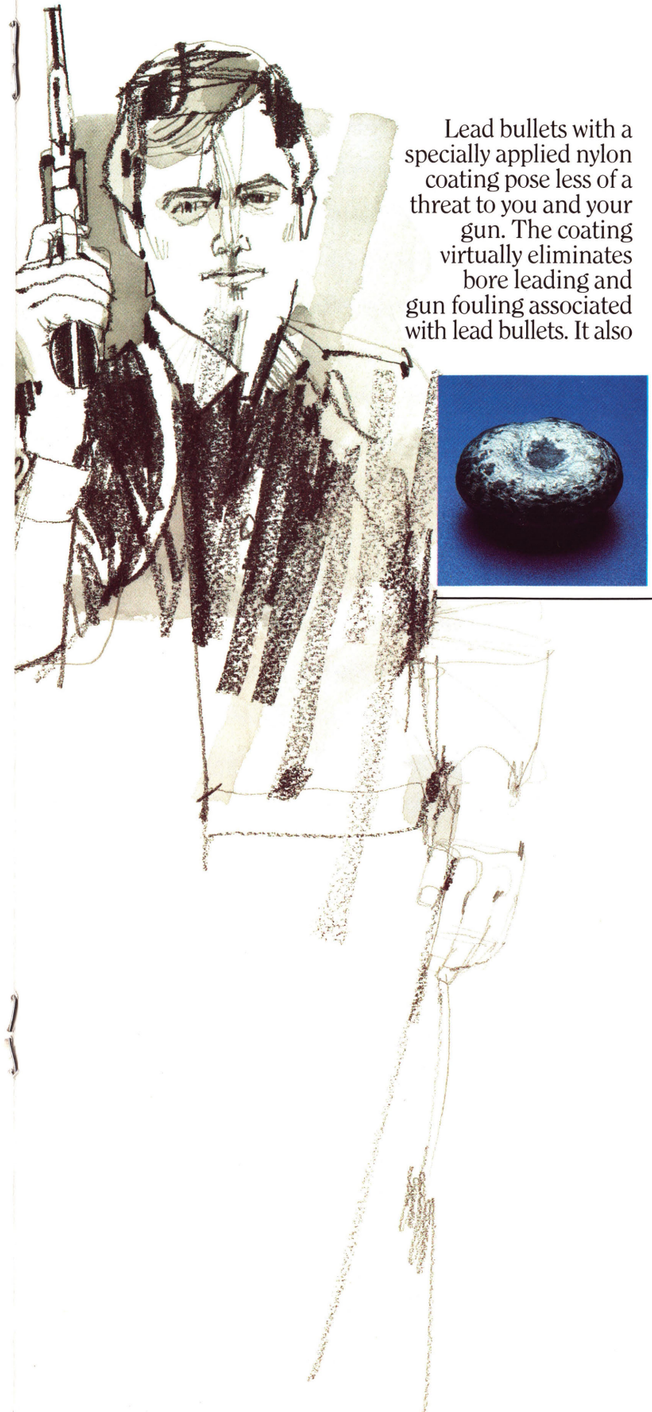
Hi-Power® and Nyclad® Automatic Pistol Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second Muzzle	Velocity in Feet Per Second 25 yds.	Velocity in Feet Per Second 50 yds.	Energy in Foot/Pounds Muzzle	Energy in Foot/Pounds 25 yds.	Energy in Foot/Pounds 50 yds.	Mid-Range Trajectory 25 yds.	Mid-Range Trajectory 50 yds.	Test Barrel Length Inches
25AP	25 Auto (6.35mm Browning)	50	3.24	Full Metal Jacket	100	760	750	730	65	60	59	0.5	1.9	2
32AP	32 Auto (7.65mm Browning)	71	4.60	Full Metal Jacket	100	905	880	855	129	120	115	0.3	1.4	4
380AP	380 Auto (9x17mm Short)	95	6.15	Full Metal Jacket	100	955	910	865	190	175	160	0.3	1.3	3¾
380BP	380 Auto (9x17mm Short)	90	5.83	Hi-Shok Jacketed HP	100	1000	940	890	200	175	160	0.3	1.2	3¾
9AP	9mm Luger (9x19mm Parabellum)	124	8.03	Full Metal Jacket	100	1120	1070	1030	345	315	290	0.2	0.9	4
9BP	9mm Luger (9x19mm Parabellum)	115	7.45	Hi-Shok Jacketed HP	100	1160	1100	1060	345	310	285	0.2	0.9	4
9CP	9mm Luger (9x19mm Parabellum)	95	6.15	Hi-Shok Jacketed SP	100	1300	1190	1140	355	300	275	0.2	0.8	4
N9BP	9mm Luger (9x19mm Parabellum)	124	8.03	Nyclad Hollow Point	100	1120	1070	1030	345	315	290	0.2	0.9	4
9BPLE	9mm Luger (9x19mm) (+P+)	115	7.45	Hi-Shok Jacketed HP	100	1300	1220	1150	432	380	335	0.2	0.7	4
45A	45 Auto	230	14.90	Full Metal Jacket	150	850	830	810	370	350	335	0.4	1.6	5
45C	45 Auto	185	11.99	Hi-Shok Jacketed HP	150	950	920	900	370	350	335	0.3	1.3	5

Hi-Power and Nyclad Revolver Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second Muzzle	Velocity in Feet Per Second 25 yds.	Velocity in Feet Per Second 50 yds.	Energy in Foot/Pounds Muzzle	Energy in Foot/Pounds 25 yds.	Energy in Foot/Pounds 50 yds.	Mid-Range Trajectory 25 yds.	Mid-Range Trajectory 50 yds.	Test Barrel Length Inches
32LA	32 S&W Long	98	6.35	Lead Wadcutter Match	100	780	700	630	130	105	85	0.5	2.2	4
32LB	32 S&W Long	98	6.35	Lead Round Nose	100	705	690	670	115	105	98	0.6	2.3	4
32HRA	32 H&R Magnum	95	6.15	Lead Semi-Wadcutter	100	1030	1000	940	225	210	190	0.3	1.1	4½
32HRB	32 H&R Magnum	85	5.50	Hi-Shok Jacketed HP	100	1100	1050	1020	230	210	195	0.2	1.0	4½
9FA	9mm Federal	115	7.45	Hi-Shok Jacketed HP	100	1280	1200	1130	420	370	330	0.2	0.7	4-V
38B	38 Special	158	10.23	Lead Round Nose	100	755	740	723	200	190	183	0.5	2.0	4-V
N38B	38 Special	158	10.23	Nyclad Round Nose	100	755	740	723	200	190	183	0.5	2.0	4-V
38C	38 Special	158	10.23	Lead Semi-Wadcutter	100	755	740	723	200	190	183	0.5	2.0	4-V
N38M	38 Special	125	8.10	Nyclad Hollow Point	100	825	780	730	190	170	150	0.4	1.8	2
38E	38 Special (High Velocity +P)	125	8.10	Hi-Shok Jacketed HP	100	945	920	898	248	235	224	0.3	1.3	4-V
38F	38 Special (High Velocity +P)	110	7.13	Hi-Shok Jacketed HP	100	995	960	926	242	225	210	0.3	1.2	4-V
38G	38 Special (High Velocity +P)	158	10.23	Semi-Wadcutter HP	100	890	870	855	278	265	257	0.3	1.4	4-V
N38G	38 Special (High Velocity +P)	158	10.23	Nyclad SWC HP	100	890	870	855	270	265	257	0.3	1.4	4-V
38H	38 Special (High Velocity +P)	158	10.23	Lead Semi-Wadcutter	100	890	870	855	270	265	257	0.3	1.4	4-V
38J	38 Special (High Velocity +P)	125	8.10	Hi-Shok Jacketed SP	100	945	920	898	248	235	224	0.3	1.3	4-V
N38N	38 Special (High Velocity +P)	125	8.10	Nyclad Hollow Point	100	945	920	898	248	235	224	0.3	1.3	4-V
38FTD	38 Special (High Velocity +P+)	110	7.13	Hi-Shok Jacketed HP	100	1020	940	880	290	245	215	0.3	1.2	2-V
38FTD	38 Special (High Velocity +P+)	110	7.13	Hi-Shok Jacketed HP	100	1160	1040	960	375	305	260	0.2	1.0	4-V
357A	357 Magnum	158	10.23	Hi-Shok Jacketed SP	100	1235	1160	1104	535	475	428	0.2	0.8	4-V
357B	357 Magnum	125	8.10	Hi-Shok Jacketed SP	100	1450	1340	1240	583	495	427	0.1	0.6	4-V
357C	357 Magnum	158	10.23	Lead Semi-Wadcutter	100	1235	1160	1104	535	475	428	0.2	0.8	4-V
357D	357 Magnum	110	7.13	Hi-Shok Jacketed HP	100	1295	1180	1094	410	340	292	0.2	0.8	4-V
357E	357 Magnum	158	10.23	Hi-Shok Jacketed HP	100	1235	1160	1104	535	475	428	0.2	0.8	4-V
N357E	357 Magnum	158	10.23	Nyclad SWC HP	100	1235	1160	1104	535	475	428	0.2	0.8	4-V
357G	357 Magnum	180	11.66	Hi-Shok Jacketed HP	100	1090	1030	980	475	425	385	0.2	1.0	4-V
41A	41 Rem. Magnum	210	13.60	Hi-Shok Jacketed HP	150	1300	1210	1130	790	680	595	0.2	0.7	4-V
44SA	44 S&W Special	200	12.96	Semi-Wadcutter HP	150	900	860	830	360	330	305	0.3	1.4	6½-V
44A	44 Rem. Magnum	240	15.55	Hi-Shok Jacketed HP	150	1180	1130	1081	741	675	623	0.2	0.9	6½-V
44B	44 Rem. Magnum	180	11.66	Hi-Shok Jacketed HP	150	1610	1480	1365	1035	875	750	0.1	0.5	6½-V
45LCA	45 Colt	225	14.58	Semi-Wadcutter HP	150	900	880	860	405	385	369	0.3	1.4	5½

+P+ and +P ammunition is loaded to a higher pressure. Use only in firearms so recommended by the gun manufacturer. In addition, +P+ ammunition is available for law enforcement and government sale only. "V" indicates vented barrel to simulate service conditions.



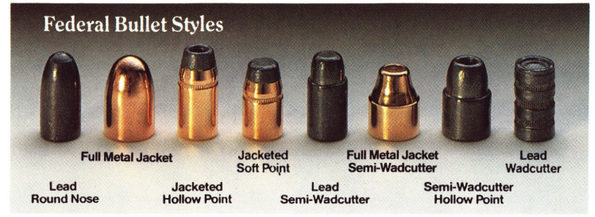
FEDERAL NYCLAD AMMUNITION

Lead bullets with a specially applied nylon coating pose less of a threat to you and your gun. The coating virtually eliminates bore leading and gun fouling associated with lead bullets. It also reduces the amount of airborne lead particles at indoor firing ranges by up to 80%. Yet the soft nylon coating still permits full expansion of the hollow point ammo.

Airborne Lead Accumulation (In micrograms per cubic meter)

Standard 158 Grain Lead Round Nose	8,482 ug/m³	
Nyclad 158 Grain Round Nose	1,656 ug/m³	NYCLAD 80% LESS CONTAMINATION

NOTE: Caliber .38 Special. Lead air samples taken over 9 minutes and 150 rounds near muzzle of gun in indoor range. Test conducted by an independent research laboratory.



Lead wadcutter (WADC). A popular revolver bullet for formal and informal target shooting, practice, and training. Noted for cutting clean, full diameter holes in paper targets. Available with or without Nyclad.

Lead semi-wadcutter (SWC). A good revolver bullet for self-defense, as the flat nose transfers energy quickly to the target. Also used for informal target shooting.

Lead semi-wadcutter hollow point (SWC-HP). A self-defense bullet offering excellent expansion for maximum energy transfer. Lower in cost than jacketed bullets. Available with or without Nyclad.

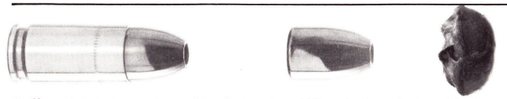
Lead round nose (LRN). The classic, all-purpose revolver bullet suitable for most types of shooting. A good low-cost bullet available with or without Nyclad.

Jacketed soft point (JSP). A high velocity, expanding bullet designed for hunting, but also suitable for self-defense.

Jacketed hollow point (JHP). The most popular high velocity, expanding bullet for self-defense. Preferred by most law enforcement agencies.

Full metal jacket semi-wadcutter (FMJ-SWC). The best choice for formal and informal target shooting with automatic pistols. The gilding metal jacket assures positive feeding.

Full metal jacket round nose (FMJ-RN). A classic high velocity bullet for general purpose use in automatic pistols. The gilding metal jacket not only assures positive feeding but also deep penetration on impact.



Hollow Point Expansion. This photo of our 115 grain 9mm jacketed hollow point bullet (9BP) illustrates the typical expansion properties of Federal hollow point loads. Controlled, consistent expansion provides optimum stopping power. The bullet above was fired into ordnance gelatin from 10 yards with a 4" barrel.

FEDERAL BUCKSHOT AND SLUGS

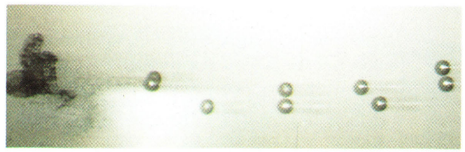
Premium Buckshot. These are the loads with patterns that stay dense farther out than any other buckshot. As an example of how well Premium buckshot patterns, consider our P154 load with 00 buck. From a full choke at 40 yards, it puts all 9 pellets inside a 15 inch circle—an area the size of a catcher's mitt.

To achieve this extraordinary performance, we cushion our extra-hard, copper-plated shot in a granulated buffer. We also use a long-range shot cup and a unique method of pellet layering to keep the shot rounder for truer flight to the target.

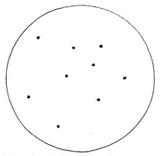
Premium Buckshot vs. Standard Buckshot

Premium Buckshot

At 1 foot from muzzle, shot pellets and buffer emerge from shot cup.

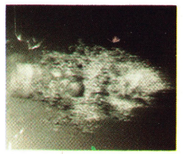


At 6 feet from muzzle, minimum dispersion of pellets and superior sphericity are apparent.

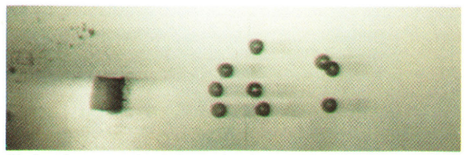


Typical 15″ circle pattern at 40 yards from full choke with Premium 9-pellet 00 buckshot.

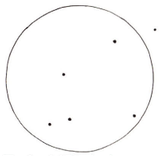
Standard Buckshot



One foot from muzzle.



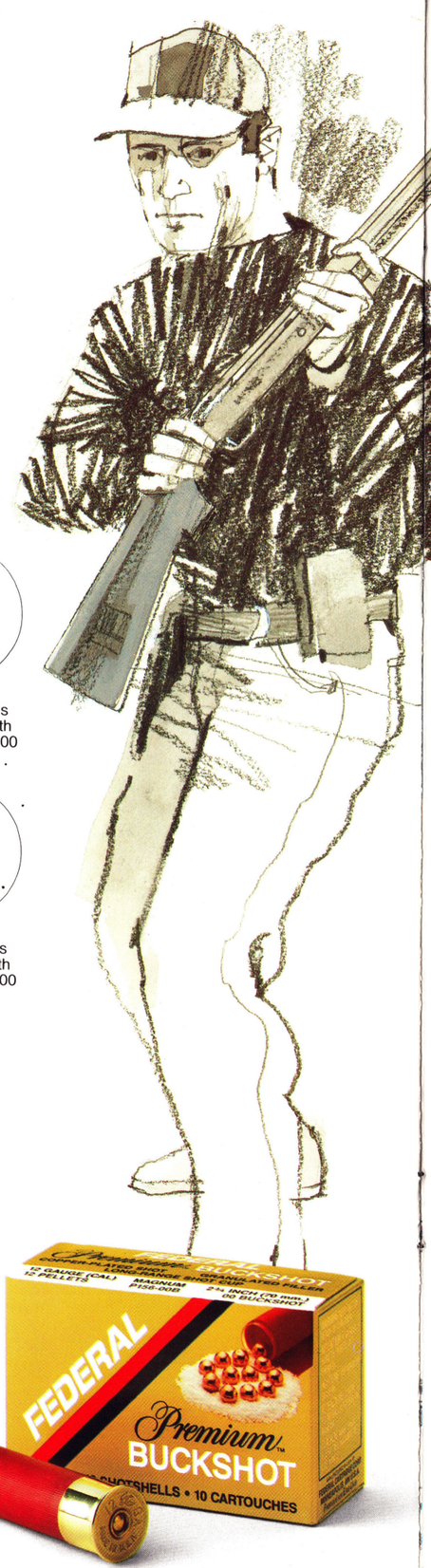
Six feet from muzzle, deformed pellets are already beginning to disperse.



Typical 15″ circle pattern at 40 yards from full choke with standard 9-pellet 00 buckshot.

Premium Buckshot

Federal Load No.	Gauge	Shell Length Inches	Shell Length mm	Dram Equiv.	Muzzle Velocity	Shot Sizes
P108	10	3½	89	Magnum	1100	18 Pellets—00 Buck
P108	10	3½	89	Magnum	1100	54 Pellets—4 Buck
P158	12	3	76	Magnum	1225	10 Pellets—000 Buck
P158	12	3	76	Magnum	1210	15 Pellets—00 Buck
P158	12	3	76	Magnum	1040	24 Pellets—1 Buck
P158	12	3	76	Magnum	1210	41 Pellets—4 Buck
P156	12	2¾	70	Magnum	1290	12 Pellets—00 Buck
P156	12	2¾	70	Magnum	1250	34 Pellets—4 Buck
P154	12	2¾	70	Max.	1325	9 Pellets—00 Buck
P154	12	2¾	70	Max.	1325	27 Pellets—4 Buck

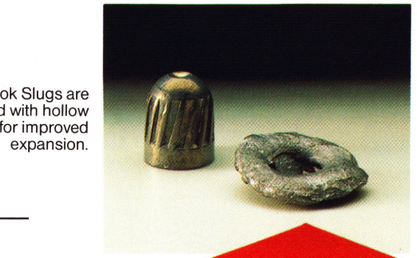


Hi-Power Buckshot. Federal Hi-Power buck ammunition also features a granulated buffer in the shot column to cushion the pellets on firing. This keeps the pellets rounder for more effective patterns. And when you need real buckshot power, these loads deliver.

Federal Buckshot

Federal Load No.	Gauge	Shell Length Inches	Shell Length mm	Dram Equiv.	Muzzle Velocity	Shot Sizes
F131	12	3	76	Magnum	1225	10 Pellets—000 Buck
F131	12	3	76	Magnum	1210	15 Pellets—00 Buck
F131	12	3	76	Magnum	1040	24 Pellets—1 Buck
F131	12	3	76	Magnum	1210	41 Pellets—4 Buck
F130	12	2¾	70	Magnum	1290	12 Pellets—00 Buck
F130	12	2¾	70	Magnum	1075	20 Pellets—1 Buck
F130	12	2¾	70	Magnum	1250	34 Pellets—4 Buck
F127	12	2¾	70	Max.	1325	8 Pellets—000 Buck
F127	12	2¾	70	Max.	1325	9 Pellets—00 Buck
F127	12	2¾	70	Max.	1275	12 Pellets—0 Buck
F127	12	2¾	70	Max.	1250	16 Pellets—1 Buck
F127	12	2¾	70	Max.	1325	27 Pellets—4 Buck
F164	16	2¾	70	Max.	1225	12 Pellets—1 Buck
F207	20	3	76	Magnum	1200	18 Pellets—2 Buck
F203	20	2¾	70	Max.	1200	20 Pellets—3 Buck

Hi-Shok Slugs are designed with hollow points for improved expansion.



Hi-Shok® Slugs. For truly effective stopping power, you can't do better than our hollow point Hi-Shok slugs. These rifled slugs tip the scales in your favor with the extra margin of energy and accuracy you desperately need. And for further improved performance, we've increased the velocities of our 12 gauge slugs.

Hi-Shok Rifled Slugs

All 12 gauge slug loads have increased velocities over 1988 figures.

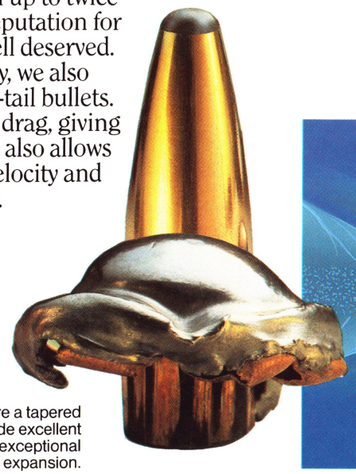
Federal Load No.	Gauge	Shell Length Inches	Shell Length mm	Slug Type	Slug Weight in Ounces	Slug Weight in Grains	Dram Equiv.	Velocity in Feet Per Second Muzzle	25 yds.	50 yds.	75 yds.	100 yds.	Energy in Foot/Pounds Muzzle	25 yds.	50 yds.	75 yds.	100 yds.	Height of Slug Trajectory In Inches Above or Below Line of Sight if Zeroed at ⊕ Yards. Sights .5 Inches Above Bore Line. 25 yds.	50 yds.	75 yds.	100 yds.	Test Barrel Length Inches
F103RS	10	3½	89	Hollow Point	1¾	766	Mag.	1280	1160	1080	1020	970	2785	2295	1980	1775	1605	+0.5	⊕	−2.3	−6.7	32
F131RS	12	3	76	Hollow Point	1¼	547	Mag.	1600	1450	1320	1210	1130	3110	2555	2120	1785	1540	+0.3	⊕	−1.5	−4.4	30
F130RS	12	2¾	70	Hollow Point	1¼	547	Mag.	1520	1380	1260	1160	1090	2805	2310	1930	1645	1450	+0.3	⊕	−1.7	−4.9	30
F127RS	12	2¾	70	Hollow Point	1	438	Max.	1610	1460	1330	1220	1140	2520	2075	1725	1455	1255	+0.3	⊕	−1.5	−4.3	30
F164RS	16	2¾	70	Hollow Point	⅘	350	Max.	1600	1360	1180	1060	990	1990	1435	1075	875	755	+0.3	⊕	−1.8	−5.4	28
F203RS	20	2¾	70	Hollow Point	¾	328	Max.	1600	1420	1270	1150	1070	1865	1465	1175	965	835	+0.3	⊕	−1.6	−4.8	26
F412RS	410	2½	63.5	Hollow Point	⅕	88	Max.	1830	1560	1340	1160	1060	650	475	345	265	215	+0.2	⊕	−1.4	−4.3	26

FEDERAL RIFLE CARTRIDGES

The right bullet for the job. That's what you'll find in Federal's special selection of law enforcement rifle cartridges.

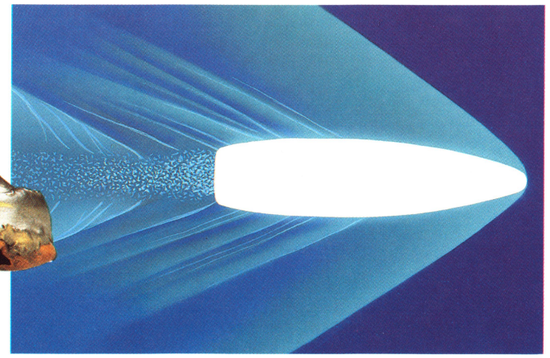
Many loads feature our exclusive Hi-Shok bullet. Noted for exceptional terminal performance, the Hi-Shok rifle bullet features a tapered jacket that thins toward the nose. This ensures excellent initial penetration, followed by mushroom expansion up to twice the original bullet diameter. Its reputation for outstanding stopping power is well deserved.

For superb long-range accuracy, we also offer a number of loads with boat-tail bullets. The tapered base greatly reduces drag, giving the bullet a flatter trajectory. This also allows the projectile to retain a higher velocity and thus deliver more striking energy.



Hi-Shok bullets feature a tapered jacket designed to provide excellent initial penetration plus exceptional mushroom expansion.

Federal offers a number of boat-tail bullets designed for superb long-range accuracy.



(Photo courtesy Sierra Bullets)

Centerfire Rifle Cartridge Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second (To Nearest 10 Feet) Muzzle	100 yds.	200 yds.	300 yds.	Energy in Foot/Pounds (To Nearest 5 Foot/Pounds) Muzzle	100 yds.	200 yds.	300 yds.	Height of Bullet Trajectory in Inches Above or Below Line of Sight if Zeroed at ⊕ Yards. Sights 1.5 Inches Above Bore Line. 50 yds.	100 yds.	200 yds.	300 yds.	Test Barrel Length Inches
22250A	22-250 Rem.	55	3.56	Soft Point	210	3680	3140	2660	2220	1655	1200	860	605	−0.4	⊕	− 2.1	− 9.1	24
P22250B		55	3.56	Boat-tail HP	210	3680	3280	2920	2590	1655	1315	1040	815	−0.4	⊕	− 1.7	− 7.6	24
22250C		40	2.59	Hollow Point Varmint	210	4000	3320	2720	2200	1420	980	660	430	−0.4	⊕	− 1.7	− 8.1	24
223A	223 Rem. (5.56x45mm)	55	3.56	Soft Point	205	3240	2750	2300	1910	1280	920	650	445	−0.3	⊕	− 3.2	−12.9	24
223B		55	3.56	FMJ Boat-tail	205	3240	2950	2670	2410	1280	1060	875	710	−0.3	⊕	− 2.5	− 9.9	24
223C		55	3.56	Boat-tail HP	205	3240	2770	2340	1950	1280	935	670	465	−0.3	⊕	− 2.7	−10.8	24
223D		40	2.59	Hollow Point Varmint	205	3650	3010	2450	1950	1185	805	535	340	−0.4	⊕	− 2.4	−10.7	24
243A	243 Win. (6.16x51mm)	80	5.18	Soft Point	210	3350	2960	2590	2260	1995	1550	1195	905	−0.3	⊕	− 2.5	−10.2	24
243B		100	6.48	Hi-Shok SP	210	2960	2700	2450	2220	1945	1615	1330	1090	−0.2	⊕	− 3.3	−12.4	24
P243D		85	5.50	Boat-tail HP	210	3320	3070	2830	2600	2080	1770	1510	1280	−0.3	⊕	− 2.2	− 8.8	24
243V		60	3.89	Hollow Point Varmint	210	3600	3110	2660	2260	1725	1285	945	680	−0.4	⊕	− 2.1	− 9.2	24
7RA	7mm Rem. Magnum	150	9.72	Hi-Shok SP	215	3110	2830	2570	2320	3220	2670	2200	1790	−0.3	⊕	− 2.9	−11.0	24
7RB		175	11.34	Hi-Shok SP	215	2860	2650	2440	2240	3180	2720	2310	1960	−0.2	⊕	− 3.5	−12.8	24
P7RE		165	10.69	Boat-tail SP	215	2950	2800	2650	2510	3190	2865	2570	2300	−0.2	⊕	− 3.0	−10.9	24
30CA	30 Carbine	110	7.13	Hi-Shok SP R.N.	205	1990	1570	1240	1040	965	600	375	260	+0.6	⊕	−12.8	−46.9	18
76239B	7.62x39mm Soviet	123	7.97	Hi-Shok SP	210	2300	2030	1780	1550	1445	1125	860	655	+0.2	⊕	− 7.0	−25.1	20
3006A	30-06 Springfield (7.62x63mm)	150	9.72	Hi-Shok SP	210	2910	2620	2340	2080	2820	2280	1825	1445	−0.2	⊕	− 3.6	−13.6	24
3006B		180	11.66	Hi-Shok SP	210	2700	2470	2250	2040	2915	2435	2025	1665	−0.1	⊕	− 4.2	−15.3	24
3006C		125	8.10	Hi-Shok SP	210	3140	2780	2450	2140	2735	2145	1660	1270	−0.3	⊕	− 3.0	−11.9	24
3006D		165	10.69	Boat-tail SP	210	2800	2610	2420	2240	2870	2490	2150	1840	−0.2	⊕	− 3.6	−13.2	24
P3006L		180	11.66	Boat-tail SP	210	2700	2540	2380	2220	2915	2570	2260	1975	−0.1	⊕	− 3.9	−13.9	24
308A	308 Win. (7.62x51mm)	150	9.72	Hi-Shok SP	210	2820	2530	2260	2010	2650	2140	1705	1345	−0.1	⊕	− 3.9	−14.7	24
308B		180	11.66	Hi-Shok SP	210	2620	2390	2180	1970	2745	2290	1895	1555	−0.1	⊕	− 4.6	−16.5	24
P308C		165	10.69	Boat-tail SP	210	2700	2520	2330	2160	2670	2310	1990	1700	−0.1	⊕	− 4.0	−14.4	24
300WB	300 Win. Magnum	180	11.66	Hi-Shok SP	215	2960	2750	2540	2340	3500	3010	2580	2195	−0.2	⊕	− 3.1	−11.7	24
P300WC		200	12.96	Boat-tail SP	215	2830	2680	2530	2380	3560	3180	2830	2520	−0.2	⊕	− 3.4	−12.2	24

AMERICAN EAGLE® AMMUNITION

Stretch your training dollar with the American Eagle product line. This limited selection of popularly priced, first quality ammunition is intended for practice, training, and informal target shooting. It allows law enforcement departments and agencies to shoot extensively without a great deal of expense.

American Eagle Rifle Cartridges are available in both standard and specialty calibers. Our standard cartridges include high velocity loads in 308 Win. and 30-06 Sprg. All cartridges feature full metal jacket bullets, most with a boat-tail design.

American Eagle Shotgun Shells are a great choice for practice. These economical light loads feature a low brass design in both 12 and 20 gauge.

American Eagle's 22 Rimfire Cartridge makes training even more affordable. The long rifle cartridge features a hard-hitting 40 grain solid bullet.

American Eagle Pistol & Revolver Cartridges are a great economical alternative. Many popular calibers are offered to give you the right choice for all your practice, training or informal target shooting needs.

American Eagle Shotshell

Federal Load No.	Gauge	Shell Length Inches	Shell Length mm	Dram Equiv.	Muzzle Velocity	Shot Charge Wgt. Ounces	Shot Charge Wgt. Grams	Shot Sizes
AE120	12	2¾	70	3¼	1290	1	28.35	6, 7½, 8
AE201	20	2¾	70	2½	1210	⅞	24.80	6, 7½, 8

American Eagle Centerfire Rifle Ballistics (Approximate)

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second (to Nearest 10 Feet) Muzzle	100 yds.	200 yds.	300 yds.	Energy in Foot/Pounds (to Nearest 5 Foot/Pounds) Muzzle	100 yds.	200 yds.	300 yds.	Height of Bullet Trajectory in Inches Above or Below Line of Sight if Zeroed at ⊕ Yards. Sights 1.5 Inches Above Bore Line. 50 yds.	100 yds.	200 yds.	300 yds.	Test Barrel Length Inches
AE223	223 Rem. (5.56x45mm)	55	3.56	FMJ Boat-tail	205	3240	2950	2670	2410	1280	1060	875	710	−0.3	⊕	− 2.5	− 9.9	24
AE30CB	30 Carbine	110	7.13	Full Metal Jacket	200	1990	1600	1280	1070	970	620	400	280	+0.9	⊕	−13.0	−47.4	18
A76239A	7.62x39mm Soviet	124	8.03	Full Metal Jacket	210	2300	2030	1780	1560	1455	1135	875	670	+0.2	⊕	− 7.0	−24.9	20
AE308D	308 Win. (7.62x51mm)	150	9.72	FMJ Boat-tail	210	2820	2620	2420	2240	2650	2280	1955	1665	−0.2	⊕	− 3.6	−13.1	24
AE3006N	30-06 Sprg. (7.62x63mm)	150	9.72	FMJ Boat-tail	210	2910	2700	2510	2320	2820	2430	2090	1785	−0.2	⊕	− 3.3	−12.1	24

These trajectory tables were calculated by computer using the best available data for each load. Trajectories are representative of the nominal behavior of each load at standard conditions (59°F temperature; barometric pressure of 29.53 inches; altitude at sea level). Shooters are cautioned that actual trajectories may differ due to variations in altitude, atmospheric conditions, guns, sights, and ammunition.

American Eagle Rimfire 22

Federal Load No.	Cartridges Per Box	Caliber	Bullet Wgt. in Grains	Bullet Style	Velocity in Feet Per Second Muzzle	50 yds.	100 yds.	150 yds.	Energy in Foot/Pounds Muzzle	50 yds.	100 yds.	150 yds.	Wind Drift in Inches 10 mph Crosswind 50 yds.	100 yds.	150 yds.	Height of Bullet Trajectory in Inches Above or Below Line of Sight if Zeroed at ⊕ Yards. Sights 1.5 Inches Above Bore Line. 50 yds.	100 yds.	150 yds.	Test Barrel Length Inches
AE510	50	22 Long Rifle HV	40	Solid	1255	1100	1015	940	140	110	92	80	1.5	5.5	11.4	⊕	−6.5	−21.0	+2.7	⊕	−10.8	24

American Eagle Pistol and Revolver Ballistics

Federal Load No.	Caliber	Bullet Wgt. in Grains	Bullet Wgt. in Grams	Bullet Style	Factory Primer No.	Velocity in Feet Per Second Muzzle	25 yds.	50 yds.	Energy in Foot/Pounds Muzzle	25 yds.	50 yds.	Mid-Range Trajectory 25 yds.	50 yds.	Test Barrel Length Inches
AE25AP	25 Auto (6.35mm Browning)	50	3.24	Full Metal Jacket	100	760	750	730	65	60	59	0.5	1.9	2
AE32AP	32 Auto (7.65mm Browning)	71	4.60	Full Metal Jacket	100	905	880	855	129	120	115	0.3	1.4	4
AE380AP	380 Auto (9x17mm Short)	95	6.15	Full Metal Jacket	100	955	910	865	190	175	160	0.3	1.3	3¾
AE9DP	9mm Luger (9x19mm Parabellum)	115	7.45	Full Metal Jacket	100	1160	1100	1060	345	310	285	0.2	0.9	4
AE38B	38 Special	158	10.23	Lead Round Nose	100	755	740	723	200	190	183	0.5	2.0	4-V
AE357A	357 Magnum	158	10.23	Jacketed SP	100	1235	1160	1104	535	475	428	0.2	0.8	4-V
AE44A	44 Rem. Magnum	240	15.55	Jacketed HP	150	1180	1130	1080	741	675	623	0.2	0.9	6½-V
AE45A	45 Auto	230	14.90	Full Metal Jacket	150	850	830	810	370	350	335	0.4	1.6	5

"V" indicates vented barrel to simulate service conditions.

FEDERAL TARGET LOADS AND 22s

Federal Target Loads. With their consistent winning performance at trap and skeet tournaments, our clay target shotgun shells are the logical choice for combat shotgun training. The Gold Medal® shell features a highly reloadable plastic hull, Gold Medal wad, extra-hard shot and Federal 209 primer.

The economical Top Gun™ shotgun shells give you the best of everything: high performance, low recoil and big savings.

Target Loads

	Federal Load No.	Gauge	Shell Length inches	Shell Length mm	Dram Equiv.	Muzzle Velocity	Shot Charge Wgt. Ounces	Shot Charge Wgt. Grams	Shot Sizes
Top Gun	F105	12	2¾	70	2¾	1145	1⅛	31.89	7½, 8, 9
Top Gun	F106	12	2¾	70	3	1200	1⅛	31.89	7½, 8
Gold Medal	F113	12	2¾	70	2¾	1180	1	28.35	8½
Gold Medal	F115	12	2¾	70	2¾	1145	1⅛	31.89	7½, 8, 9
Gold Medal	F116	12	2¾	70	3	1200	1⅛	31.89	7½, 8, 9

22 Ammunition. Federal 22 rimfire ammunition is designed for top performance in police training and practice programs. Champion™ standard velocity loads were specifically developed for consistent accuracy. Hi-Power high velocity 22s with copper-plated bullets deliver flat trajectory and hard-hitting performance. For 22 Win. Magnum, we offer one full metal jacket and two jacketed hollow point loads.

22 Rimfire Ballistics (Approximate)

Federal Load No.	Cartridge	Cartridges Per Box	Bullet Weight in Grains	Type	Velocity in Feet Per Second: Muzzle	50 yds.	100 yds.	150 yds.	Energy in Foot/Pounds: Muzzle	50 yds.	100 yds.	150 yds.	Wind Drift in Inches 10 mph Crosswind: 50 yds.	100 yds.	150 yds.	Height of Bullet Trajectory in Inches Above or Below Line of Sight if Zeroed at ⊕ Yards. Sights 1.5 Inches Above Bore Line.: 50 yds.	100 yds.	150 yds.	50 yds.	100 yds.	150 yds.
711 Champion	22 Long Rifle (Standard Velocity)	50	40	Solid	1150	1050	975	910	117	95	85	75	1.2	4.4	9.4	⊕	−7.3	−23.6	+3.2	⊕	−12.1
710 Hi-Power	22 Long Rifle (High Velocity)	50	40	Solid, Copper Plated	1255	1100	1015	940	140	110	92	80	1.5	5.5	11.4	⊕	−6.5	−21.0	+2.7	⊕	−10.8
737 22 Magnum	22 Win. Magnum	50	40	Full Metal Jacket	1910	1600	1330	1140	325	225	155	115	1.3	5.7	13.4	⊕	−2.9	−10.7	+1.0	⊕	− 5.8
747 22 Magnum	22 Win. Magnum	50	40	Jacketed Hollow Point	1910	1600	1330	1140	325	225	155	115	1.3	5.7	13.4	⊕	−2.9	−10.7	+1.0	⊕	− 5.8
757 22 Magnum	22 Win. Magnum	50	50	Jacketed Hollow Point	1650	1450	1280	1150	300	235	180	145	1.1	4.5	10.3	⊕	−3.6	−12.5	+1.3	⊕	− 6.5

Ballistics figures were derived from 24" test barrels.

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